CLAIMS

What is claimed is:

1   1.   A method of verifying data in a RAID system, comprising:

2   reading a first item of data from a first data storage device and a second item of

3   data from a second data storage device;

4   comparing the first item of data from the first storage device with the second

5   item of data from the second storage device, wherein if the first item of

6   data does not match the second item of data, reading a third item of data

7   from a third data storage device and comparing the third item of data

8   with at least one of the first item of data and the second item of data.

1   2.   The method as described in claim 1, wherein if the third item of data matches at

2   least one of the first item of data and the second item of data, transferring a

3   matching item of data

1   3.   The method as described in claim 1, wherein if the third item of data matches

2   the first item of data, updating the second item of data.

1   4.   The method as described in claim 3, wherein the second item of data is updated

2   to match at least one of the first item of data and the third item of data.

1   5.   The method as described in claim 1, wherein if the third item of data does not

2   match at least one of the first item of data and the second item of data, an error

3   is reported.

1   6.   The method as described in claim 1, further comprising sending an initial item

2   of data by a controller to arrive at the first item of data on the first storage

3   device, the second item of data one the second storage device and the third item

4   of data on the third storage device.

1 7.   The method as described in claim 6, wherein the first item of data is written on

2   the first storage device, the second item of data is written on the second storage

3   device and the third item of data is written on the third storage device, at least

4   one of the first item of data and the second item of data is corrupted so as not to

5   match the initial item of data.

1   8. An electronic data storage system, comprising:

2   a first data storage device suitable for storing electronic data, the first storage

3   device including a first item of data;

4   a second data storage device suitable for storing electronic data, the second

5   storage device including a second item of data;

6   a third data storage device suitable for storing electronic data, the third storage

7   device including a third item of data; and

8   a storage device controller coupled to the first data storage device, the second

9   data storage device and the third data storage device, wherein the storage

10   device controller reads a first item of data from a first data storage

11   device and a second item of data from a second data storage device and

12   compares the first item of data from the first storage device with the

13   second item of data from the second storage device, wherein if the first

14   item of data does not match the second item of data, the third item of

15   data is read from the third data storage device and the third item of data

16   is compared with at least one of the first item of data and the second item

17   of data.

1   9. The system as described in claim 8, wherein if the third item of data matches the

2   first item of data, at least one of the first item of data and the third item of data

3   is transferred.

1   10. The system as described in claim 8, wherein if the third item of data matches the

2   first item of data, the second item of data is updated.

1   11. The system as described in claim 10, wherein the second item of data is updated

2   to match at least one of the first item of data and the third item of data.

1   12.   The system as described in claim 8, wherein if the third item of data does not

2   match at least one of the first item of data and the second item of data, an error

3   is reported.

1   13.   The system as described in claim 8, wherein the storage device controller sends

2   an initial item of data to the first data storage device to arrive at the first item of

3   data, to the second storage device to arrive at the second item of data and to the

4   third storage device to arrive at the third item of data.

1   14.   The method as described in claim 13, wherein the first item of data is written on

2   the first storage device, the second item of data is written on the second storage

3   device and the third item of data is written on the third storage device, at least

4   one of the first item of data and the second item of data is corrupted so as not to

5   match the initial item of data.

1   15.   A method of verifying data in a RAID system, comprising:

2   reading a first item of data from a first data storage device and a second item of

3   data from a second data storage device;

4   comparing the first item of data from the first storage device with the second

5   item of data from the second storage device, wherein if the first item of

6   data does not match the second item of data, reading a third item of data

7   from a third data storage device and comparing the third item of data

8   with the first item of data, wherein if the third item of data matches the

9   first item of data, the second item of data is updated.

1   16.   The method as described in claim 15, wherein if the third item of data matches

2   the first item of data, transferring at least one of the first item of data and the

3   third item of data.

1   17.   The method as described in claim 15, wherein the second item of data is updated

2   to match at least one of the first item of data and the third item of data.

1   18.   The method as described in claim 15, wherein if the third item of data does not

2   match at least one of the first item of data and the second item of data, an error

3   is reported.

1   19.   The method as described in claim 15, further comprising sending an initial item

2   of data by a controller to the first storage device to arrive at the first item of

3   data on the first storage device, to the second storage device to arrive at the

4   second item of data one the second storage device and to the third storage device

5   to arrive at the third item of data on the third storage device.

1   20.   The method as described in claim 19, wherein the first item of data is written on

2   the first storage device, the second item of data is written on the second storage

3   device and the third item of data is written on the third storage device, at least

4   one of the first item of data and the second item of data is corrupted so as not to

5   match the initial item of data.